

## DISPOSABLE CHAIR COVER

### CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This patent application claims priority to Australian Patent Application Serial Number 2003100523, filed June 30, 2003, which is hereby incorporated by reference in its entirety.

### BACKGROUND OF THE INVENTION

[0002] This invention relates generally to removable chair covers, and more specifically, to removable chair covers for use with large numbers of chairs typically used at functions and events.

[0003] Over the past decade, there has been a significant increase in the popularity of removable chair covers. These removable chair covers are generally used for functions and events (e.g., wedding receptions, conventions, holiday gatherings) where it is desirable to have chairs, for example, rented chairs, which look clean and uniform. The removable chair covers therefore are able to "hide" non-uniform or worn chairs from the view of patrons at the function or event. Another advantage of the removable chair cover is that the chair itself is protected from wear and tear. In addition, some removable chair covers are used solely for decorative purposes.

[0004] Existing removable chair covers for functions or events are made of a woven fabric that is cut and stitched together so as to fit a standard type of chair. Generally, the cover, when fitted to a chair, is tied down using one of a variety of available tying methods. Such removable chair covers have been extremely popular and they are now widely available. However, since their introduction, there has been very little further development of the basic concept of the removable chair cover.

[0005] Woven fabric removable chair covers are becoming more expensive to manufacture as general costs of materials and manufacture increase.

Accordingly, in order for the existing woven fabric removable chair covers to be a profitable item for a rental company or a meeting place such as a hotel ballroom, it is necessary for the removable chair cover to be reused. Reuse requires the added expense of washing (usually dry cleaning), repair, storage and other related costs (e.g., the cost of the post-function pick-up of the covers). Those manufacturing and reuse costs in a relatively competitive market have pushed down the profitability of known chair covers. Added to these expenses is the environmental and economic costs of disposal of the relatively non-biodegradable woven fabric.

[0006] Another limitation of the woven fabric removable chair cover is that they cannot be printed with company logos and the like without making them useless for future functions. Addition of colored ribbons within such chair covers is also another reuse problem. Therefore, an ability to customize existing removable chair covers is very limited given the cost savings inherent in the reusable nature of the chair cover. When any customizations are added to known chair covers, the more non-generic the particular chair cover becomes. Changes to the standard size, shape, color or print of a removable chair cover will make it far less reusable.

#### BRIEF DESCRIPTION OF THE INVENTION

[0007] In one aspect, a disposable cover for a chair is provided which comprises a substantially rectangular cut piece of paper. The paper comprises a first edge and a second edge opposite the first edge. The paper is folded mid way across its longitudinal axis such that portions of the first edge overlap portions of the second edge.

[0008] In another aspect, a method for forming a disposable cover for a chair is provided. The method comprises cutting a substantially rectangular piece of paper sized to cover the chair, folding the paper approximately in half along its longitudinal axis, and joining the sides of the paper which extend from the fold, forming an open end. The method also comprises placing the open end of the disposable cover over a top of a chair and sliding the disposable cover along the chair contours until the open end is positioned substantially around legs of the chair.

**BRIEF DESCRIPTION OF THE DRAWINGS**

[0009] Figure 1 illustrates a roll of paper being fed out and cut along curved lines to produce a disposable chair cover.

[0010] Figure 2 illustrates an individual disposable chair cover cut from the roll of Figure 1, the cover being formed in part by folding along line A-B.

[0011] Figure 3 illustrates the disposable chair cover of Figure 2 having been folded along line A-B, and having sides that have been joined together.

[0012] Figure 4 illustrates a method for fitting the disposable chair cover to a chair.

[0013] Figure 5 illustrates an alternative method for fitting the disposable chair cover to a chair.

**DETAILED DESCRIPTION OF THE INVENTION**

[0014] A disposable cover for a chair is herein described which includes at least one open end for receiving at least a portion of a chair, such that when the disposable cover is in use, the disposable cover covers substantially the back, the seat and the legs of the chair with the open end positioned around the legs of the chair. The disposable chair cover is described below in greater detail by reference to the accompanying, non-limiting figures.

[0015] Referring to Figure 1, a roll of paper 10 having a first edge 12 and a second edge 14 is fed out and cut along curved lines 16 to produce individual disposable chair covers 20. Each cut across roll 10 is made from first edge 12 to second edge 14 of paper 10 following a path of curved lines 16 which, in one embodiment, is between 20 and 40 degrees of a circle. The path of curved lines 16 is dependent on a depth of the chairs disposable chair cover 20 will be fitted to. The greater the depth of the chair, typically the greater the portion of a circle curved lines 16 will follow. Each curved line 16 across roll of paper 10 is the same distance apart as approximately twice the height of the chair onto which chair cover 20 is to be

installed. Using these guidelines, the cutting process results in minimal, if any, wastage of paper.

[0016] Figure 2 illustrates an individual disposable chair cover 20 that has been cut from roll of paper 10 (shown in Figure 1). In one embodiment, a length of disposable chair cover 20 is about twice the height of the chair onto which it is to be installed. Disposable chair cover 20 is formed in part by folding chair cover 20 along line A-B. For example, each rectangular cut piece of paper 22 which constitutes chair cover 20 is folded mid way across its longitudinal axis (e.g., along line A-B), such that portions of first edge 12 and portions of second edge 14 of cut piece of paper 22 lay over themselves and can be joined together.

[0017] Disposable chair cover 20 is suitable for use with a standard function room chair, for example, a no-armed chair with a back, a seat, and four legs, and includes a rectangular cut piece of paper 22, which, in one embodiment, is typically 1.0 to 1.4 meters wide and about 40 GSM non-woven paper. Other sizes for rectangular piece of paper are also contemplated, depending upon the particular application. The benefits of this particular paper include that it is disposable, biodegradable, fire resistant, color fast, fabric-like, light for transportation (in comparison with known removable chair cover fabrics) and tear-resistant.

[0018] Figure 3 illustrates disposable chair cover 20 having been folded along line A-B, and having sides 30 that have been joined together. As described above, each rectangular cut piece of paper 22 is folded mid way (along line A-B) along the straight uncut sides (e.g., first edge 12 and second edge 14), forming a top 30, so that the uncut sides lay over themselves and can be joined together. In one embodiment, and as shown in Figure 3, the folded halves of first edge 12 are stitched together using one or more of adhesive, basic knot stitching, line stitching, and micro stitching. The folding and stitching results in an open end 32 to disposable chair cover 20 that is defined by circular cut ends 34 and 36 that will, when in use, sit around a bottom of the four legs of a chair. The folding and stitching also provides an opposing non-stitched, and therefore stronger, closed end (e.g., top 30) which fits, or which can be folded to fit a top of a back of the chair. Joined edges 38 and 40 of the

cover flow along sides of the chair when in use and may need to be folded in front of or behind the chair for presentation and stability purposes.

[0019] In use, open end 32 of chair cover 20 is placed over the top of a chair and slipped over the remaining part of the chair. A front of chair cover 20 is defined by the convex side of open end 32 of chair cover 20 (e.g., circular cut end 36) and, when in use, should rest at the bottom of the front legs of the chair and around the side of the chair at or near the ground. The back of chair cover 20 is defined by the concave side of open end 32 of chair cover 20 (e.g. circular cut end 34) and, when in use, should rest at the bottom of the back legs of the chair and around the side of the chair at or near the ground.

[0020] Top 30 of chair cover 20 is defined by the fold (line A-B) produced during the manufacturing process described above and, when in use, lies at the top of the back of the chair or fairly close thereby. Disposable chair cover 20 is then smoothed over the chair to take the shape of the chair. The excess sides (first edge 12 and second edge 14) of chair cover 20 can then be folded or arranged in any manner in front of, behind, or behind and to the side of the chair and tied in position. Such an example installation of a chair cover 20 is illustrated in Figure 4. Alternatively, chair cover 20 is held in position by a loop of fabric or another similar object that stretched over the mid or lower portion of the back of the chair and chair cover 20, as illustrated in Figure 5.

[0021] Prior to being put in use, disposable chair cover 20 for a chair can have logos, drawings, images or the like applied to them by way of printing, image transfer, painting or the like. Preferably, disposable chair cover 20 is made of a non-woven and tear-resistant paper. The term "tear-resistant", as used herein, is not meant to mean tear-proof, but means that the paper is resistant to tearing through the general wear and tear expected of the chair cover over the duration of a function or event, for example, anywhere from about one hours to about six hours. The non-woven and tear-resistant paper is preferably biodegradable, fire retardant, color fast, and should be relatively inexpensive. The technical aspects of one example of a suitable non-woven paper are as set out in the following table:

	<b>Unit</b>	<b>Target</b>	<b>Standard-deviation</b>
<b>Weight</b>	g/m <sup>2</sup>	47	1.6
<b>Thickness</b>	micron	158	9
<b>Permeability 196 Pa</b>	L/M <sup>2</sup> /S	858	172
<b>Tensile Strength MD</b>	N/M	770	111
<b>Tensile Strength CD</b>	N/M	583	84
<b>Elongation MD</b>	%	4	
<b>Elongation CD</b>	%	10	
<b>Trapezium Tear MD</b>	cN	185	
<b>Trapezium Tear CD</b>	cN	207	
<b>Ratio Wet/Dry</b>	%	51	
<b>Water Drop Test</b>	Seconds	88	
<b>Thickness</b>	Micron	138	8
<b>Permeability 196 Pa</b>	L/M <sup>2</sup> /S	763	153
<b>Tensile Strength MD</b>	N/M	1070	154
<b>Tensile Strength</b>	N/M	772	111
<b>Elongation MD</b>	%	5	
<b>Elongation CD</b>	%	10	
<b>Trapezium Tear MD</b>	cN	189	
<b>Trapezium Tear CD</b>	cN	203	
<b>Ratio Wet/Dry</b>	%	53	
<b>Water Drop Test</b>	seconds	855	

[0022] In particular, non-woven paper number 4550 from Ahlstrom satisfies the technical aspects set out in the above table. Persons skilled in the art will appreciate that a paper having similar technical aspects to the paper described in the above table will also be suitable for use in the invention.

[0023] In summary, disposable chair cover 20 includes a substantially rectangular piece of paper 22 folded so that at least two opposing edges (first edge 12 and second edge 14) of rectangular piece of paper 22 align and wherein the aligned opposing edges are joined together to produce a collapsible tube

comprising an open end 32, an opposing closed end (top 30) and two joined sides 38 and 40. Joined sides 38 and 40 are joined by any means. In one embodiment, sides 38 and 40 are joined with an adhesive. In an alternative embodiment, sides 38 and 40 are joined together with stitching. In addition to stitching of the traditional form used with cloth, disposable chair cover 20 can also be stitched with thick ribbon like materials, a paper product similar to that utilized for disposable chair cover 20, or another paper product for a more aesthetically pleasing chair cover

[0024] In one embodiment, disposable chair cover 20 is shaped to neatly fit a chair. In particular, disposable chair cover 20 is shaped such that open end 32 of disposable chair cover 20 comprises two non-joined edges of paper circular cut ends 34 and 36. In the embodiment, one of the two non-joined edges is of a substantially arcuate or concave shape (circular cut end 36) and the other of the two non-joined edges is of a substantially convex shape (circular cut end 34). When in use, a middle portion of the substantially convex edge rests at the bottom of the front legs of the chair and a middle portion of the substantially concave edge rests at the bottom of the back legs of the chair.

[0025] While described herein as pertaining to a rental setting, for example, wedding receptions and conventions, and being packaged in a roll of many such covers, it should be noted that the above described disposable chair cover is certainly applicable to individuals. For example, an individual desiring to temporarily cover one or more chairs within their home. As such, the above described disposable chair cover is thought to have a retail potential where a smaller number of such covers are packaged for purchase.

[0026] It will be appreciated by persons skilled in the art that numerous variations and/or modifications may be made to the invention described in the specific embodiments. The present embodiments are, therefore, to be considered in all respects as illustrative and not restrictive. While the invention has been described in terms of various specific embodiments, those skilled in the art will recognize that the invention can be practiced with modification within the spirit and scope of the claims.